

## Patent claims

1. Planetary transmission, in particular for machine tools, with a drive shaft that is connected to a sun gear, with an output shaft that is connected to a planetary carrier and with an interior gear, that in a first operating position engages with the housing, and in the second operating position engages with the sun gear, with a hub that surrounds the drive shaft concentrically and with a sliding collar that surrounds the hub concentrically and that engages with the hub in an operating position, characterized in that the sliding collar (5) engages in the loose end of the interior gear (4) with a centering diameter (7) concentrically located with the hub (6), which in the engaged position of the sliding collar (5) engages with the hub (6) in a concentric position with the hub's axle on its centering collar (8).
2. Planetary transmission according to patent claim 1, characterized in that the centering collar (8) first comes in contact with the centering diameter (8) by approaching it diagonally to the displacement direction of the centering diameter with the beveled running edge of the centering diameter.
3. Planetary transmission according to patent claims 1 and 2, characterized in that the centering diameter (7) first comes in contact with the centering diameter, approaching it diagonally to the displacement direction of the centering diameter (7) with the beveled running edge of the centering collar.
4. Planetary transmission according to any of the preceding patent claims, characterized in that a holding ring (9) is planned in the loose upper side of the centering diameter (7) in the hub (6).
5. Planetary transmission according to patent claim 4, characterized in that the holding ring (9) is shrunk.